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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,040	01/29/2004	Cale T. Rath	ROC920030275US1	4827

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William J. McGinnis, Jr.
IBM Corporation, Dept. 917
3605 Highway 52 North
Rochester, MN 55901-7829

EXAMINER
PADMANABHAN, KAVITA

ART UNIT	PAPER NUMBER
2161	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/767,040	RATH ET AL.
	Examiner	Art Unit	
	Kavita Padmanabhan	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 December 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   Claims 1-20 are pending.

2.   Claims 1, 8, 10, 15, 16, and 20 have been amended.

3.   Claims 1-20 are rejected.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   **Claims 1-5 and 7-20** are rejected under 35 U.S.C. 102(b) as being anticipated by **Chau**

et al. (US 2002/0123993, hereinafter "Chau").

        In regards to **claim 1, Chau** teaches a method for managing structured data having one or

more repeating fields, comprising:

        – receiving a hierarchical data structure containing the structured data **(Chau; par [0042] –**

        "the hierarchical structure of an XML document" **– XML documents are**

        hierarchical; Fig. 11, reference character 1100 – *"Receive an XML document*

        containing XML data") wherein the structured data is annotation data related to an

        annotated data object **(Chau; par [0044]; par [0051] – par [0052]; par [0195] – XML**

        document is interpreted to be an annotated data object and the data contained

therein is interpreted to be annotation data in that it is related to the XML documents; applicant's specification at par [0021] states broadly, *"The term annotation data (or simply annotation) generally refers to any type of descriptive information associated with one or more data objects. Annotations may exist in various forms, including any combination of textual annotations (descriptions, revisions, clarifications, comments, instructions, etc.), graphical annotations (pictures, symbols, etc.), sound clips, etc. "*) and wherein at least two instances of a repeating field are contained in the structured data **(Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18 – multiple occurrence)**;

– parsing the structured data to identify the repeating fields **(Chau; par [0884] –** *"the XML system parses the XML document to generate an XML Document Object Model (DOM) tree"; "the XML System maps data from the XML DOM tree to columns in relational tables according to the DAD DOM tree."* **– parses xml document and maps to tables)**;

– generating an ordinal value for each instance of the repeating fields, each ordinal value indicating an order in which a corresponding instance of a repeating field occurs in the hierarchical data structure as received **(Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18 –** *"This DXX_SEQNO keeps track of the order of elements occurred for the path expression in each inserted XML documents. With DXX_SEQNO, the user can retrieve a list of the elements with the same order as the original XML document using "ORDER BY DXX_SEQNO" in SQL")*; and

– storing the structured data and ordinal values in one or more relational tables **(Chau; par [0085]; par [0881]** – *"Compose or decompose contents of XML documents from/into an XML collection which consists of one or more relational tables."*).

In regards to **claim 2**, **Chau** teaches the method of claim 1, wherein storing the structured data and ordinal values in one or more relational tables comprises storing instance data from a repeating field in a common relational table **(Chau; par [0142]; par [0150]; par [0168]; par [0171]; par [0174]; par [0177])**.

In regards to **claim 3**, **Chau** teaches the method of claim 2, wherein the common relational table has at least a column for the instance data, a column for corresponding ordinal values, and a column for a key value to identify a data structure associated with the repeating field **(Chau; par [0142]; par [0150]; par [0168]; par [0169]; par [0171]; par [0174]; par [0177]; par [0224];)**.

Claims 4-5 are rejected with the same rationale given for claim 1, wherein the repeating group of one or more fields consists of one field, as is required by claim 4, and the group thereby contains that one repeating field, as is required by claim 5.

In regards to **claim 7**, **Chau** teaches the method of claim 1, wherein the structured data is received as input via an interface generated based on a template structure defined by one or more fields or groups of fields **(Chau; par [0044]; par [0051]** – **par [0052]; par [0132]; par [0134])**.

In regards to **claim 8**, **Chau** teaches the method of claim 7, wherein:

–   the template structure is selected based, at least in part, on the annotated data object

(Chau; par [0044]; par [0051] – par [0052]; the interface, which must be based on an

underlying template/code, is selected/used at least in part based on the input data

being XML).

In regards to **claim 9**, **Chau** teaches the method of claim 1, further comprising:

–   receiving a request for the structured data (Chau; par [0051] – par [0052]; par [0702];

par [0939]);

–   retrieving the structured data and ordinal values from the one or more relational tables

(Chau; par [0884]; par [0939]);

–   assembling the structured data in a hierarchical data structure based on the hierarchical

data structure in which it was received, with a position of instance values of repeated

fields within the hierarchical data structure determined by corresponding ordinal values

(Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18; par [0939]); and

–   returning the assembled hierarchical data structure (Chau; par [0051] – par [0052]; par

[0702]; par [0939]).

Claims 10, 11, 12, 13, and 14 are rejected with the same rationale given for claims 1, 2,

3, 4, and 9, respectively.

Claims 15, 16, 17, 18, 19, and 20 are rejected with the same rationale given for claims 7,

2, 3, 4, 9, and 8, respectively.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)

and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8.   **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chau in view of**

Mihai et al. (US 2005/0065817, hereinafter "Mihai").

In regards to **claim 6**, **Chau** teaches the method of claim 1.

Chau does not expressly teach receiving the structured data in a hierarchical format as a

Simple Object Access Protocol (SOAP) message.

Mihai teaches SOAP as a messaging protocol for encoding XML to be sent or received

over a network or communication path (**Mihai; par [0118] – par [0119]**).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's

invention to implement the method of Chau using the SOAP messaging protocol to send XML

data so that the data can be received by a web services type of software interface (**Mihai; par**

[0118] – par [0119]).

Response to Amendment

9.   Applicant's amendments filed 12/21/06 with respect to the objections to the specification

have been fully considered. The corresponding objections have been withdrawn accordingly.

10.   Applicant's amendment filed 12/21/06 with respect to the objection to claim 16 has been

fully considered. The corresponding objection has been withdrawn accordingly.

Response to Arguments

11.   Applicant's arguments filed 12/21/06 with respect to the 35 U.S.C. 101 rejections have

been fully considered. The corresponding rejections have been withdrawn accordingly.

12.   Applicant's arguments filed 12/21/06 with respect to the prior art rejections of the claims

have been fully considered but they are not persuasive.

Applicant argues at page 13 of applicant's remarks that Chau does not teach a method for

managing structured data having one or more repeating fields that includes a step of receiving a

hierarchical data structure containing the structured data wherein the structured data is annotation

data related to an annotated data object and wherein at least two instances of a repeating field are

contained in the structured data. The examiner respectfully disagrees and refers the applicant to the stated rejection above. To clarify, the examiner asserts that Chau teaches a hierarchical data structure (Chau; par [0042] – *"the hierarchical structure of an XML document"* – XML documents are hierarchical; Fig. 11, reference character 1100 – *"Receive an XML document containing XML data"*) storing annotation data related to an annotated data object (Chau; par [0044]; par [0051] – par [0052]; par [0195] – XML document is interpreted to be an annotated data object and the data contained therein is interpreted to be annotation data in that it is related to the XML documents) and wherein at least two instances of a repeating field are contained in the structured data (Chau; par [0150]; par [0171]; par [0177]; par [0886], lines 17-18 – multiple occurrence).

The applicant goes on to argue that an XML document does not constitute an annotated data object, however does not explain why an XML document could not be interpreted as such. The examiner respectfully disagrees with the applicant's argument. The examiner notes that the applicant's specification at par [0021] states broadly, "The term annotation data (or simply annotation) generally refers to any type of descriptive information associated with one or more data objects. Annotations may exist in various forms, including any combination of textual annotations (descriptions, revisions, clarifications, comments, instructions, etc.), graphical annotations (pictures, symbols, etc.), sound clips, etc.". The examiner asserts that an XML document clearly fits within the broadest reasonable interpretation of an annotated data object in that it clearly contains annotation data in accordance with the applicant's specification.

Conclusion

13.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

14.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Kavita Padmanabhan** whose telephone number is **571-272-**

8352. The examiner can normally be reached on Monday-Friday, 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kavita Padmanabhan   February 27, 2007
Assistant Examiner
AU 2161